Doc code: IDS Doc description: Information Disclosure Statement (IDS) Filed

PTO/SB/08a (07-09)
Approved for use through 07/31/2012. OMB 0651-0031
Ormation Disclosure Statement (IDS) Filed
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

	Application Number		10696545	
	Filing Date		2003-10-29	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	First Named Inventor Xunming Deng		ing Deng	
	Art Unit		1795	
	Examiner Name	Jeffre	y Thomas Barton	
	Attorney Docket Number		1-25574	

				U.S.	PATENTS	Remove
Examiner Initial*	Cite No	Patent Number	Kind Code ¹	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	6221685		2001-04-24	ICHINOSE et al.	
	2	6222115		2001-04-24	NAKANISHI	
	3	6242686		2001-06-05	KISHIMOTO et al.	
	4	6361660		2002-03-26	GOLDSTEIN	
	5	6471850		2002-10-29	SHIEPE et al.	
	6	6471834		2002-10-29	ROE et al.	
	7	6566594		2003-05-20	SANO et al.	
If you wis	h to ac	dd additional U.S. Paten	t citatio	n information pl	lease click the Add button.	Add
U.S.PATENT APPLICATION PUBLICATIONS Remove						

Application Number		10696545
Filing Date		2003-10-29
First Named Inventor	Xunm	ing Deng
Art Unit		1795
Examiner Name	Jeffre	y Thomas Barton
Attorney Docket Number		1-25574

			1								
Examiner Initial*	Cite No	Publication Number	Kind Code ¹	Publication Date		of cited Document		Relev	Pages,Columns,Lines where Relevant Passages or Relev Figures Appear		
	1										
If you wisl	h to ac	dd additional U.S. Publi	shed Ap	plication	citation	n information p	please click the Add	butto	n. Add		
				FOREIG	SN PAT	ENT DOCUM	ENTS		Remove		
Examiner Initial*	Cite No	Foreign Document Number ³	Country Code ²		Kind Code ⁴	Publication Date	Name of Patentee Applicant of cited Document	or	where Rel	or Relevant	T5
	1	JP-2000264053				2000-09-26	Tagawa Satoshi et	al.			
	2	JP-2277592				1990-11-14	Kawabata Shigeyuk	ci .			
	3	JP-362092380				1987-04-27	Owada et al.				
	4	JP-408051227				1996-02-20	Sano et al.				
If you wisl	h to ac	dd additional Foreign Pa	atent Do	cument	citation	information pl	ease click the Add	button	Add		
			NON	I-PATEN	NT LITE	RATURE DO	CUMENTS		Remove		
Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.						T 5			
	1	Miller, E.L.; Rocheleau, R.E., Deng, X.M., Design considerations for a hybrid amorphous silicon/photoelectrochemical multi-junction cell for hydrogen production, Int. J. Hydrogen Energy, 28(6), 2003, 615-623.									

Application Number		10696545	
Filing Date		2003-10-29	
First Named Inventor Xunm		ing Deng	
Art Unit		1795	
Examiner Name	Jeffre	y Thomas Barton	
Attorney Docket Number		1-25574	

2 Bak, T.; Nowony, J.; Rekas, M.; Sorrell, C.C., Photo-electrochemical hydrogen generation from water using solar energy, Materials-related aspects, Int. J. Hydrogen Energy, 27 (10), 2002, 991-1022. 3 Ohmori, T.; Go, H.; Yamaguchi, N.; Nakayama, A.; Mametsuka, H.; Suzuki, E., Photovoltaic water electrolysis using the sputler-deposited a Silo-Si solar cells, Int. J. Hydrogen Energy 26 (7), 2001, 661-664. 4 Ulleberg, O., Modeling of advanced alkaline electrolyzers: a system simulation approach, Int. J. Hydrogen Energy, 28 (1), 2003, 21-33. 5 El-Shater, Th.F., Eskandar, M.N., El-Hagry, M.T., Hybrid PV/fuel cell system design and simulation, Renewable Energy 27(2002) 479-485. 6 Hollmuller, P., Joubert, J.M., Lachal, B., Yvon, K., Evaluation of a 5 kWp photovoltaic hydrogen production and storage installation for a residential home in Switzerland, Int. J. Hydrogen Energy, 25 (2) 2009, 97-103. 7 Abaoud, H., Steeb, H., The German-Saudi HYSOLAR Program, Int. J. Hydrogen Energy, 23(6) 1998, 445-449. 8 Szyszka, A., Ten years of solar hydrogen demonstration project at Neunburg Vorm Wald, Germany, Int. J. Hydrogen Energy, 23(10), 1998, 849-860. 9 Bolton, J.R., Solar photoproduction of hydrogen: a review, Solar Energy, 57, 37-50 (1996). 10 Kocha, S.S., Montgomery, D., Peterson, M.W., Turner, J.A, Photoelectrochemical decomposition of water utilizing monolithic tandem cells, Solar Energy Materials & Solar Cells, 52, 389-397 (1998). 11 Licht, S., Efficient solar generation of hydrogen fuel — a fundamental analysis, Electrochemistry Communications 4, 790-795 (2002).			
sputter-deposited a-Si/c-Si solar cells, Int. J. Hydrogen Energy 26 (7), 2001, 661-664. Ullieberg, O., Modeling of advanced alkaline electrolyzers: a system simulation approach, Int. J. Hydrogen Energy, 28 (1), 2003, 21-33. El-Shatter, Th.F., Eskandar, M.N., El-Hagry, M.T., Hybrid PV/fuel cell system design and simulation, Renewable Energy 27(2002) 479-485. Hollmuller, P., Joubert, J.M., Lachal, B., Yvon, K., Evaluation of a 5 kWp photovoltaic hydrogen production and storage installation for a residential home in Switzerland, Int. J. Hydrogen Energy, 25 (2) 2000, 97-109. Abaoud, H., Steeb, H., The German-Saudi HYSOLAR Program, Int. J. Hydrogen Energy, 23(6) 1998, 445-449. Szyszka, A., Ten years of solar hydrogen demonstration project at Neunburg Vorm Wald, Germany, Int. J. Hydrogen Energy, 23(10), 1998, 849-860. Bolton, J.R., Solar photoproduction of hydrogen: a review, Solar Energy, 57, 37-50 (1996). Nocha, S.S., Montgomery, D., Peterson, M.W., Turner, JA, Photoelectrochemical decomposition of water utilizing monolithic tandem cells, Solar Energy Materials & Solar Cells, 52, 389-397 (1998).	2		
5 El-Shatter, Th.F., Eskandar, M.N., El-Hagry, M.T., Hybrid PV/fuel cell system design and simulation, Renewable Energy 27(2002) 479-485. 6 Hollmuller, P., Joubert, J-M., Lachal, B., Yvon, K., Evaluation of a 5 kWp photovoltaic hydrogen production and storage installation for a residential home in Switzerland, Int. J. Hydrogen Energy, 25 (2) 2000, 97-109. 7 Abaoud, H., Steeb, H., The German-Saudi HYSOLAR Program, Int. J. Hydrogen Energy, 23(6) 1998, 445-449. 8 Szyszka, A., Ten years of solar hydrogen demonstration project at Neunburg Vorm Wald, Germany, Int. J Hydrogen Energy, 23(10), 1998, 849-860. 9 Bolton, J.R., Solar photoproduction of hydrogen: a review, Solar Energy, 57, 37-50 (1996). 10 Kocha, S.S., Montgomery, D., Peterson, M.W., Turner, JA, Photoelectrochemical decomposition of water utilizing monolithic tandem cells, Solar Energy Materials & Solar Cells, 52, 389-397 (1998). 11 Licht, S., Efficient solar generation of hydrogen fuel — a fundamental analysis, Electrochemistry Communications 4, 790-795 (2002).	3		
Energy 27(2002) 479-485. Hollmuller, P., Joubert, J-M., Lachal, B., Yvon, K., Evaluation of a 5 kWp photovoltaic hydrogen production and storage installation for a residential home in Switzerland, Int. J. Hydrogen Energy, 25 (2) 2000, 97-109. Abaoud, H., Steeb, H., The German-Saudi HYSOLAR Program, Int. J. Hydrogen Energy, 23(6) 1998, 445-449. Szyszka, A., Ten years of solar hydrogen demonstration project at Neunburg Vorm Wald, Germany, Int. J. Hydrogen Energy, 23(10), 1998, 849-860. Bolton, J.R., Solar photoproduction of hydrogen: a review, Solar Energy, 57, 37-50 (1996). Kocha, S.S., Montgomery, D., Peterson, M.W., Turner, JA, Photoelectrochemical decomposition of water utilizing monolithic tandem cells, Solar Energy Materials & Solar Cells, 52, 389-397 (1998). Licht, S., Efficient solar generation of hydrogen fuel — a fundamental analysis, Electrochemistry Communications 4, 790-795 (2002).	4		
installation for a residential home in Switzerland, Int. J. Hydrogen Energy, 25 (2) 2000, 97-109. Abaoud, H., Steeb, H., The German-Saudi HYSOLAR Program, Int. J. Hydrogen Energy, 23(6) 1998, 445-449. Szyszka, A., Ten years of solar hydrogen demonstration project at Neunburg Vorm Wald, Germany, Int. J. Hydrogen Energy, 23(10), 1998, 849-860. Bolton, J.R., Solar photoproduction of hydrogen: a review, Solar Energy, 57, 37-50 (1996). Kocha, S.S., Montgomery, D., Peterson, M.W., Turner, JA, Photoelectrochemical decomposition of water utilizing monolithic tandem cells, Solar Energy Materials & Solar Cells, 52, 389-397 (1998). Licht, S., Efficient solar generation of hydrogen fuel — a fundamental analysis, Electrochemistry Communications 4, 790-795 (2002).	5		
8 Szyszka, A., Ten years of solar hydrogen demonstration project at Neunburg Vorm Wald, Germany, Int. J Hydrogen Energy, 23(10), 1998, 849-860. 9 Bolton, J.R., Solar photoproduction of hydrogen: a review, Solar Energy, 57, 37-50 (1996). 10 Kocha, S.S., Montgomery, D., Peterson, M.W., Turner, JA, Photoelectrochemical decomposition of water utilizing monolithic tandem cells, Solar Energy Materials & Solar Cells, 52, 389-397 (1998). 11 Licht, S., Efficient solar generation of hydrogen fuel — a fundamental analysis, Electrochemistry Communications 4, 790-795 (2002).	6		
Bolton, J.R., Solar photoproduction of hydrogen: a review, Solar Energy, 57, 37-50 (1996). Wocha, S.S., Montgomery, D., Peterson, M.W., Turner, JA, Photoelectrochemical decomposition of water utilizing monolithic tandem cells, Solar Energy Materials & Solar Cells, 52, 389-397 (1998). Licht, S., Efficient solar generation of hydrogen fuel — a fundamental analysis, Electrochemistry Communications 4, 790-795 (2002).	7	Abaoud, H., Steeb, H., The German-Saudi HYSOLAR Program, Int. J. Hydrogen Energy, 23(6) 1998, 445-449.	
Kocha, S.S., Montgomery, D., Peterson, M.W., Turner, JA, Photoelectrochemical decomposition of water utilizing monolithic tandem cells, Solar Energy Materials & Solar Cells, 52, 389-397 (1998). Licht, S., Efficient solar generation of hydrogen fuel a fundamental analysis, Electrochemistry Communications 4, 790-795 (2002).	8		
monolithic tandem cells, Solar Energy Materials & Solar Cells, 52, 389-397 (1998). Licht, S., Efficient solar generation of hydrogen fuel a fundamental analysis, Electrochemistry Communications 4, 790-795 (2002). Shukla, P.K., Karn, R.K., Singh, A.K., Srivastava, O.N., Studies on PV assisted PEC solar cells for hydrogen	9	Bolton, J.R., Solar photoproduction of hydrogen: a review, Solar Energy, 57, 37-50 (1996).	
790-795 (2002). Shukla, P.K., Karn, R.K., Singh, A.K., Srivastava, O.N., Studies on PV assisted PEC solar cells for hydrogen	10		
	11		
	12		

Application Number		10696545	
Filing Date		2003-10-29	
First Named Inventor	Xunm	ing Deng	
Art Unit		1795	
Examiner Name Jeffre		y Thomas Barton	
Attorney Docket Number		1-25574	

13	Gao, X., Kocha, S., Frank, A.J., Turner, J.A, Photoelectrochemical decomposition of water using modified monolithic tandem cells, Int. J. of Hydrogen Energy, 24, 319325 (1999).	
14	Rocheleau, R.E., Miller, E.L., Photoelectrochemical production of hydrogen: Engineering loss analysis, Int. J. Hydrogen Energy, 22, 771-782 (1997).	
15	Perez-Mendez, V., Morel, J., Kaplan, S. N., Street, R. A., Detection of Charged Particles in Amorphous Silicon Layers, Nuclear Instruments and Methods in Physics Research, 252, 478-482 (1986).	
16	Hong, W.S., Mireshghi, A, Drewery, J.S., Jing, T., Kitsuno, Y., Lee, H., Kaplan, S.N., Perez-Mendez, V., Charged Particle Detectors Based on High Quality Amorphous Silicon Deposited with Hydrogen or Helium Dilution of Silane, IEEE Transactions on Nuclear Science, 42(4), August 1995, p. 240-246.	
17	Holcomb, D. E., Wintenburg, A., Deng, X.M., Pixelated Neutron Beam Monitor Development, Proc. of International Workshop on position-sensitive detectors, held at Hahn-Meitner-Institut, Berlin, Germany, June 28-30 (2001).	
18	Deng, X.M., Jones, S.J., Liu, T., Izu, M., Ovshinsky, S.R., Improved µc-Si p-layer and a-Si i-layer materials using VHF plasma deposition, in Conference Record of the Twenty Sixth IEEE Photovoltaic Specialists Conference1997, p.591-594 (1997).	
19	Wang, W., Povolny, H.S., Du, W., Liao, X.B., Deng, X.M., Triple-Junction a-Si Solar Cells with Heavily Doped Thin Interface Layers at the Tunnel Junctions, in Proc. of IEEE 29th Photovoltaic Specialist Conference, 2002.	
20	Povolny, H. S., Deng, X.M., High Rate Deposition of Amorphous Silicon Films Using HWCVD With a Coil-Shaped Filament, Thin Solid Films, Vol. 430, 125-129 (2003).	
21	Kymakis, E., Alexandrou, I., Amaratunga, G.A.J., High open-circuit voltage photovoltaic devices from carbon-nanotube-polymer composites, J. Application. Phys. 93 (3), 1764-1768 (2003).	
22	Pratima Agarwal, Povolny, H., Han, S., Deng, X.M., Study of SiGe:H Films and n-i-p Devices used in High Efficiency Triple Junction Solar Cells, J. Non-Crystalline Solids, (2002) Vol. 299-302-,pp.1213-1218.	
23	Liao et al.; AMPS MODELING OF NANOCRYSTALLINE Si P-LAYER IN a-Si NIP SOLAR CELLS; 29th annual IEEE photovoltaics conference 2002, New Orleans, LA, May 19-24, 2002; pp. 1234-1237.	

Application Number		10696545
Filing Date		2003-10-29
First Named Inventor Xunm		ing Deng
Art Unit		1795
Examiner Name	Jeffre	y Thomas Barton
Attorney Docket Number		1-25574

If you wish to add additional non-patent literature document citation information please click the Add button Add						
EXAMINER SIGNATURE						
Examiner Signature		Date Considered				
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.						
¹ See Kind Codes of USPTO Patent Documents at <u>www.USPTO.GOV</u> or MPEP 901.04. ² Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). ³ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁴ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁵ Applicant is to place a check mark here if English language translation is attached.						